

IN THE SPECIFICATION:

Please amend the specification as follows:

Paragraph beginning on page 1, at prenumbered line 6, has been amended as follows:

[0001] The present invention relates to an automatic power conservation method for an optical media ~~and device thereof~~, device, and more particularly, to an automatic power conservation method for an optical media ~~and device thereof~~ that is capable of turning off more circuit components while operating in ~~the~~ a sleep-mode.

Paragraph beginning on page 1, at prenumbered line 27, has been amended as follows:

[0004] Please refer to Fig. 1, which is a block diagram of the circuitry between the PC and the IC of a conventional optical media device. As the optical media device enters the sleep-mode, the PC, or the Host 150 will send some signals to the HI 120 of the IC 100 in the optical media. Based on the signal received by the HI 120 from the Host 150, the MCU 110 of the IC 100 will send the information of the current operating mode of the optical media device to the Host 150 through the HI 120 in response.

Paragraph beginning on page 2, at prenumbered line 2, has been amended as follows:

[0005] The optical media device can leave the sleep-mode by ~~requesting a request~~ from the user through the Host 150, or through the panel of the optical media (which is not shown in the figure). However, the user wakes the optical media device up from the sleep-mode either through the Host 150 or the panel, the control signal needs to be sent from the HI 120 to the MCU 110 so that the MCU 110 can ask the optical media device to leave the sleep-mode. Moreover, while processing these signals, the MCU 110 needs to access the DRAM 140 outside the IC 100 through the RAM Arbiter 130.

Paragraph beginning on page 2, at prenumbered line 10, has been amended as follows:

[0006] Therefore, while the foregoing conventional mechanism for optical media device is in the sleep-mode, the HI 120, the MCU 110, the RAM Arbiter 130, and the DRAM 140 of the optical media device are, instead of in the sleep-mode, still processing. If these circuit components can as well enter the sleep-mode as the optical media entering the same, the power can be conserved.

Paragraph beginning on page 2, at prenumbered line 16, has been amended as follows:

[0007] In view of this, the present invention provides an automatic power conservation method for optical media device to conserve more power by turning off more circuit components when the optical media device enters the sleep-mode.

Paragraph beginning on page 2, at prenumbered line 21, has been amended as follows:

[0008] The primary object of the present invention is to provide an automatic power conservation method for an optical media device that, when the optical media device enters the sleep-mode, the HI of the optical media device will turn off other circuit components that are still in operation and thereafter the HI is also being used for issuing a response to an external signal received by the optical media device. If the external signal requests the optical media to leave the sleep-mode, the HI will wake up those circuit components that are turned off by the same.

Paragraph beginning on page 3, at prenumbered line 5, has been amended as follows:

[0011] However, as the optical media device enters the sleep-mode, the HI will ~~response~~respond to external signals received by the optical media device, such as signals transmitted from the host of a PC or the input panel of the optical media device.

Paragraph beginning on page 3, at prenumbered line 8, has been amended as follows:

[0012] The other object of the present invention is to provide an automatic power conservation device for the optical media device that the host ~~inference interface~~ of the optical media possesses the firmware capable of responding to an external signal.

Paragraph beginning on page 3, at prenumbered line 12, has been amended as follows:

[0013] To sum up, the present invention provides an automatic power conservation method for the optical media device and the receiving method thereof that is capable of conserving more energy by turning off more circuit components when entering the sleep-mode.

Paragraph beginning on page 3, at prenumbered line 25, has been amended as follows:

[0016] In order to turn off more circuit components when the optical media device enters the sleep-mode, such as the MCU and the RAM Arbiter inside the IC or the DRAM outside the IC, the present invention utilizes the HI in the IC of the optical media device to ~~response~~respond to the external signal directly when in the sleep-mode, instead of responding by the MCU. Therefore, if the optical media device can operate using this mechanism (AUTOACK) when entering the sleep-mode, the MCU and the related circuit components posterior to the MCU surely can be turned off so that the power conservation can be achieved when the optical media device enters the sleep-mode.

Paragraph beginning on page 4, at prenumbered line 6, has been amended as follows:

[0018] Please refer to Fig. 2, which is a flowchart depicting an automatic power conservation method for the optical media device according to a preferred embodiment of the present invention. Before entering the sleep mode when the optical media device is on, the optical media device is in a normal mode as seen in

Step 201. In step 202, After the optical media device enters the sleep-mode, the HI inside the IC of the optical media device will make an evaluation depending on the idling time of the optical media device to determine whether to execute the power conservation function, or AUTOACK, by the the firmware embedded therein.

Paragraph beginning on page 4, at prenumbered line 15, has been amended as follows:

[0019] As the optical media device had entered the sleep-mode and had idled for a period of time, the HI will execute the AUTOACK and turn off the circuit components that are still in operation, such as the MCU and the RAM Arbiter in the IC, and the DRAM outside the IC. In the preferred embodiment of the present invention, the HI will turn off the MCU first in considering that the MCU consumes most of the power as seen in step 203. In step 204, after turning off the MCU, the HI will then turn off other circuit components that are in operation, such as the RAM Arbiter and the DRAM.

Paragraph beginning on page 4, at prenumbered line 23, has been amended as follows:

[0020] If the optical media device ~~hasn't~~~~haven't~~ been idled for a certain period of time after the optical media device enters the sleep-mode, the HI will not execute the AUTOACK function and the optical media device will be in the normal mode, which is represented by step 202 to 201.

Paragraph beginning on page 4, at prenumbered line 27, has been amended as follows:

[0021] On the contrary, after HI executes the AUTOACK function and turns off the circuit components that are still in operation as the optical media device entered the sleep-mode, the HI plays the role of the MCU in the sleep-mode of a conventional optical media device, that the HI will ~~response~~ respond to the external signals sent from the host of the optical media device, or the PC, such as the Test ~~Unity Unit~~ Ready and the Request Sense signals from the PC through the ATAPI interface of the optical media. Assuming the signal sent from the PC to the HI is the

Request Sense ATAPI command, the HI will decode the same automatically for determining the transferring mode (PIO/DMA/UDMA) and the amount of data to be transferred, and then transfers a table data to the host so that the host knows the error code of the optical media device, and a interrupt signal is being issued automatically by the HI after the transferring so that the optical media device can still remain in the sleep-mode, which is represented by Steps 205 to 204.

Paragraph beginning on page 5, at prenumbered line 13, has been amended as follows:

[0023] Therefore, by utilizing the AUTOACK function, the optical media device can turn off the circuit components, such as the MCU, the RAM Arbiter, and the DRAM, that are still in operation in a convention optical media when the optical media device enters the sleep-mode, such that the power consumption can be reduced efficiently. According to the experiments, the power consumption of the optical media device without using the AUTOACK function is 120 mA, while the consumption is significantly reduced to 90 ~ 100 mA when the AUTOACK function is on.

Paragraph beginning on page 5, at prenumbered line 21, has been amended as follows:

[0024] In summary, the present invention provides an automatic power conservation method for the optical media ~~and device thereof~~, device, which is capable of conserving more power by turning off more circuit components when entering the sleep-mode and is realized by the firmware programmed in the HI so that the HI can ~~response~~respond to the host of the optical media device.